

OPERATIONS • MARKET DEVELOPMENT • PRACTICE

Concrete®

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HMB Building & Garden Inc.
Half Moon Bay, California

Butler Concrete taps Empire Hydrogen device to optimize diesel combustion

Butler Concrete and Aggregate Ltd. of Victoria, B.C. has deployed a diesel enhancement system on its mixer truck fleet with an eye to improved fuel efficiency, plus lower carbon dioxide and nitrogen oxide emissions. Mounted near the mixer gear box, the 75-lb. Empire Hydrogen system uses stainless steel plate filters and potassium hydroxide to initiate electrolysis, separating the hydrogen and oxygen from distilled water molecules. The system then directs the flammable gases to the engine air intake, where they augment diesel combustion.

"We are always examining operational improvements to reduce our carbon footprint," says President Travis Butler. "Our collaboration with Empire Hydrogen shows we can make a net positive difference when we work together and embrace innovation." Operational improvements such as diesel enhancement position Butler Concrete, he adds, to offer "the cleanest and greenest ready mixed to the local construction industry, backed by third-party verified Environmental Product Declarations."

"Our goal to provide green solutions and address the growing requirements for energy consumption makes working with Butler a great fit," affirms Empire Hydrogen CEO Sven Tjelta. "Our organizations realize the potential that technology holds to address global climate concerns. Seeing our technology implemented at Butler reaffirms our mission to partner with industry and make our world a better place for future generations." — *Empire Hydrogen Energy Systems Inc., Sidney, B.C., 778/426-0911; www.empirehydrogen.com*



The Empire Hydrogen system is offered in 12- and 24-volt versions, respectively suiting on- or on/off-road and off-road power units. Charges are applied to the system's stainless steel plates, which harbor distilled water and potassium hydroxide. An electric current breaks the water molecules into a 2:1 mixture of H₂ and O₂ gases, which serve as accelerants when injected into the fuel combustion stream.



Across its nearly 40-mixer fleet, Butler Concrete and Aggregate is tracking diesel and diesel exhaust fluid savings attributable to the Empire Hydrogen Fuel Enhancement System, mounted between the drum and water tank. The lead McNeilus mixer bears on a Western Star 4800 Twin Steer, with Detroit DD 13 power and Eaton UltraShift automated manual transmission.